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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,825

06/08/2005

Yasushi Tomioka

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EXAMINER

WU, SHEAN CHIU

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

06/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,825	Applicant(s) TOMIOKA ET AL.	
	Examiner Shean C. Wu	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-18, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 9-11 and 19-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 12-18 and 25 are rejected under 35 U.S.C. 102(b) as being anticipates by Tomioka et al. (US 20010048498).

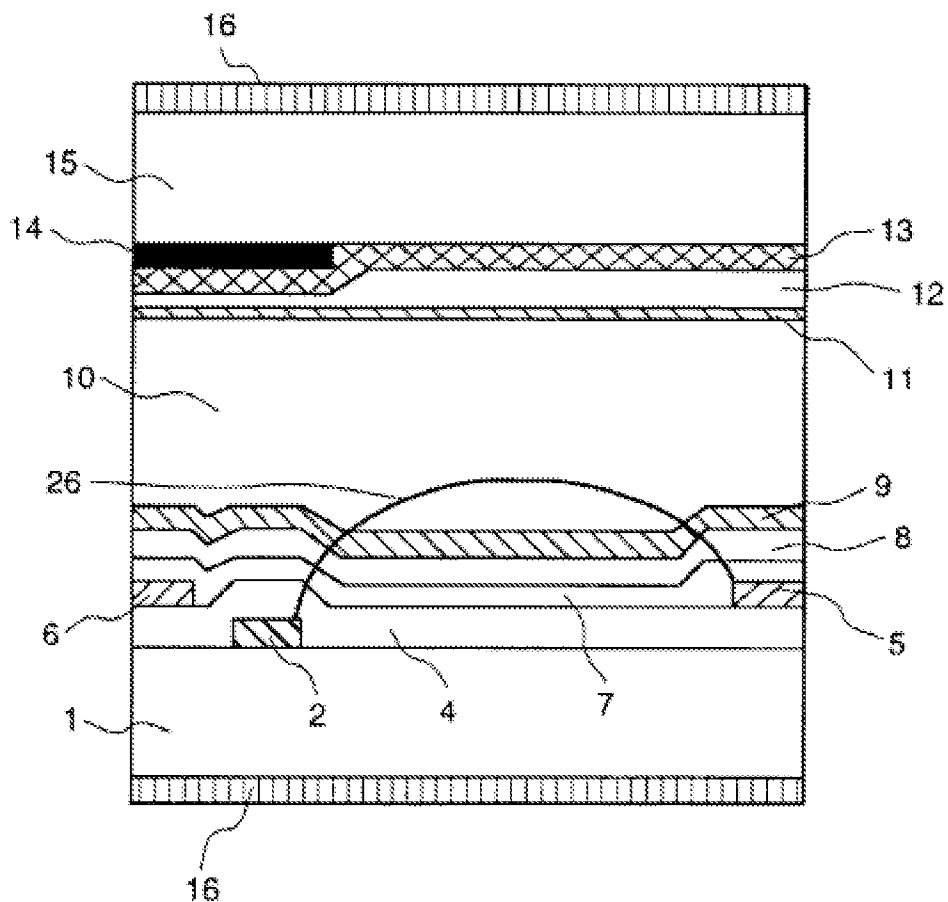
The reference discloses that a liquid crystal display device has a pair of substrates, at least one of the substrates being **transparent**; a liquid crystal layer interposed between the pair of substrates; and pixel electrodes and common electrodes and active elements arranged on at least one substrate between the pair of substrates, wherein a pair of **alignment layers** are made of an organic polymer of polyamic acid group of polyamide ester group having a relative imidization ration above 60%; or at least one layer of an insulation film is interposed between the **alignment layer** in a side of the substrate having the group of electrodes formed thereon, and the pixel electrode and the common electrode disposed under the **alignment layer** to prevent occurrence of the sticking image and the after image by flattening the electrode portions to moderate the electric field concentration. The **transparent** electric conductive film is an ion doped titanium oxide film or an ion doped zinc oxide (ZnO) film.

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In Fig. 1, the liquid crystal display device 50 is composed of; liquid crystal 10 interposed between the substrates 1, 15; a common electrode 2 and pixel electrode 5 formed on the substrate 1 so as to apply a voltage between them to generate an electric field having a component parallel to the substrate surface, as schematically shown by the reference character 26 in the figure; a signal electrode 6 and an active element of a **thin film** transistor (TFT) 17 formed in the substrate 1; **alignment layers** 9, 11 of the liquid crystal formed on the surfaces in contact with the liquid crystal 10 of the substrates 1, 15; and a polarizing plate 16 of an optical means for changing the optical characteristic corresponding to an alignment state of the liquid crystal. Therein, although a **thin film** diode may be used as the active element instead of the TFT, it is preferable to use the

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TFT, which has a good operating characteristic as a switching element.



The panel was placed between two polarizing plates 16, and the two polarizing plates 16 were arranged so that the polarized light passing axis of one of the polarizing plates might be nearly parallel to the rubbing direction described above, and the polarized light passing axis of the other might be nearly orthogonal to the rubbing direction (see [0119]). In Example 8, the reference discloses a polyamic acid vanish composed of 4,4'-diamino-diphenyl methane as the diamine chemical compound and 1,2,3,4-cyclobutane-tetracarboxylic acid anhydride as the acid anhydride was printed on the surface of the substrate, and imidized at 230⁰ C for 30 minutes to form an alignment

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layer which had a film thickness of about 50 nm and a surface uneven level difference of 20 nm. After that, photo alignment treatment was performed by irradiating linearly polarized light of 313 nm wavelength onto the surface.

The reference further discloses a ~~common~~ electrode 2 and the scanning electrode 18 are aluminum films. In order to form a flat ~~insulation~~ film having a thickness enough to moderate the electric field, the film forming method by an applying method such as spinning, printing, dipping or the like is preferable. For example, an ~~organic~~ film generally having a lower dielectric constant compared to an ~~inorganic~~ film is effective ([0084]). Therefore, the reference teaching anticipates the claimed invention.

Claim Rejections - 35 USC § 112

3. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is vague because the alignment control layer is irradiated by the linearly polarized light having a wavelength range from 200 nm to 400 nm in claim 1.

Allowable Subject Matter

4. Claims 9-11 and 19-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

5. Applicant's arguments, see remarks, filed 4/9/09, with respect to the rejection in the previous Office action has been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made in the sections 2-3 cited above.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 10:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kelly Cynthia can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shean C Wu/
Primary Examiner, Art Unit 1795

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